# Complete Summary

## GUIDELINE TITLE

Induction of labour.

## BIBLIOGRAPHIC SOURCE(S)

Singapore Ministry of Health. Induction of labour. Singapore: Singapore Ministry of Health; 2000 Aug. 22 p. [28 references]

## COMPLETE SUMMARY CONTENT



## SCOPE

### DISEASE/CONDITION(S)

Pregnancy

### GUIDELINE CATEGORY

Evaluation
Management
Treatment

### CLINICAL SPECIALTY

Obstetrics and Gynecology

### INTENDED USERS

Advanced Practice Nurses
Allied Health Personnel
Nurses
Physician Assistants
Physicians

## GUIDELINE OBJECTIVE(S)

To aid the practicing obstetrician in the induction of labour

## TARGET POPULATION

Pregnant women

## INTERVENTIONS AND PRACTICES CONSIDERED

1. Patient selection for labour induction based on risks and benefits of continuing pregnancy
2. Determination of foetal age with ultrasound
3. Cervical ripening with extraovular catheters, osmotic dilators, prostaglandins (e.g., prostaglandin $E_2$), or locally applied hormones (e.g., relaxin and oestrogens)
4. Induction with amniotomy (artificial rupture of membranes) combined with oxytocin infusion
5. Electronic foetal heart rate monitoring

## MAJOR OUTCOMES CONSIDERED

Maternal and foetal morbidity and mortality

# METHODOLOGY

## METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

## DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Not stated

## NUMBER OF SOURCE DOCUMENTS

Not stated

## METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

## RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level Ia: Evidence obtained from meta-analysis of randomised controlled trials.

Level Ib: Evidence obtained from at least one randomised controlled trial.

Level IIa: Evidence obtained from at least one well-designed controlled study without randomisation.

Level IIb: Evidence obtained from at least one other type of well-designed quasi-experimental study.

Level III: Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.

Level IV: Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

## METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

## DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

## METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

## RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Grades of Recommendation

Grade A (evidence levels Ia, Ib): Requires at least one randomized controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation.

Grade B (evidence levels IIa, IIb, III): Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.

Grade C (evidence level IV): Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates absence of directly applicable clinical studies of good quality.

Good Practice Points: Recommended best practice based on the clinical experience of the guideline development group.

## COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

## METHOD OF GUIDELINE VALIDATION

Not stated

## DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

# RECOMMENDATIONS

## MAJOR RECOMMENDATIONS

Each recommendation is rated based on the level of the evidence and the grades of recommendation. Definitions of the grades of the recommendations (A, B, C, Good Practice Points) and level of the evidence (Level I- Level IV) are presented at the end of the Major Recommendations field.

C - Induction of labour is indicated when the benefits of delivery to the mother or foetus outweigh those of continuing with the pregnancy. The risks of induction should be weighed against the benefits of continuing with the pregnancy. (Grade C, Level IV)

C - The decision to perform a social induction of labour should be taken on a case-by-case basis, after fully discussing the potential risks and disadvantages with the patient (Royal College of Obstetricians & Gynaecologists [RCOG], 1998). (Grade C, Level IV)

C - Induction of labour should be performed in an environment where trained personnel and facilities are available to deal immediately with any complication of induction of labour. (Grade C, Level IV)

C - Continuous electronic foetal heart rate monitoring in active labour is recommended (RCOG, 1998; American College of Obstetricians & Gynaecologists, 1995; Spencer & Ward, 1993). (Grade C, Level IV)

A - The favourability of the cervix, or otherwise, should be assessed prior to induction. If the cervix is unfavourable and the induction necessary, ripening of the cervix is useful. (Grade A, Level Ia)

C - Prostaglandins should be administered at a facility where continuous uterine activity and foetal heart rate monitoring can be performed. (Grade C, Level IV)

A - The oxytocin levels required to produce effective contractions vary widely among individuals (Amico, Seitchik, & Robinson, 1984; Arulkumaran et al, 1985) and thus the oxytocin titrated must be individualised. (Grade A, Level Ib)

C - Continuous electronic foetal monitoring is recommended whenever an oxytocin infusion is used. (Grade C, Level IV)

B - Induction of labour is not contraindicated in women with one previous low segment transverse caesarean section as long as the labour is monitored closely. (Grade B, Level III)

Grades of Recommendation

Grade A (evidence levels Ia, Ib): Requires at least one randomized controlled trial as part of the body of literature of overall good quality and consistency addressing the specific recommendation.

Grade B (evidence levels IIa, IIb, III): Requires availability of well conducted clinical studies but no randomised clinical trials on the topic of recommendation.

Grade C (evidence level IV): Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates absence of directly applicable clinical studies of good quality.

Good Practice Points: Recommended best practice based on the clinical experience of the guideline development group.

Levels of Evidence

Level Ia: Evidence obtained from meta-analysis of randomised controlled trials.

Level Ib: Evidence obtained from at least one randomised controlled trial.

Level IIa: Evidence obtained from at least one well-designed controlled study without randomisation.

Level IIb: Evidence obtained from at least one other type of well-designed quasi-experimental study.

Level III: Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies.

Level IV:Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities.

## CLINICAL ALGORITHM(S)

None provided

# EVIDENCE SUPPORTING THE RECOMMENDATIONS

## REFERENCES SUPPORTING THE RECOMMENDATIONS

References open in a new window

## TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

Appropriate and safe performance of labour induction in pregnant women who would benefit from delivery

### POTENTIAL HARMS

Uterine hyperstimulation and foetal compromise are potential complications of labor induction with prostaglandins and oxytocin.

Subgroups Most Likely to be Harmed:

Prostaglandins should be used with caution in patients with grand multiparity or with a history of caesarean section or major uterine surgery.

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

These guidelines are not intended to serve as a standard of medical care. Standards of medical care are determined on the basis of all clinical data available for an individual case and are subject to change as scientific knowledge advances and patterns of care evolve.

The contents of the guideline document are guidelines to clinical practice, based on the best available evidence at the time of development. Adherence to these guidelines may not ensure a successful outcome in every case, nor should they be construed as including all proper methods of care or excluding other acceptable methods of care. Each physician is ultimately responsible for the management of his/ her unique patient in the light of the clinical data presented by the patient and the diagnostic and treatment options available.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

Audit parameters should look at:

- Induction rate
- Indications for induction of labour
- Caesarean section rate following induction of labour
- Instrumental vaginal delivery rate following induction of labour
- Perinatal outcome, i.e., mortality and morbidity (APGAR score and admission to neonatal intensive care unit)

## INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

### IOM CARE NEED

Staying Healthy

### IOM DOMAIN

Effectiveness
Patient-centeredness
Safety

## IDENTIFYING INFORMATION AND AVAILABILITY

### BIBLIOGRAPHIC SOURCE(S)

Singapore Ministry of Health. Induction of labour. Singapore: Singapore Ministry of Health; 2000 Aug. 22 p. [28 references]

### ADAPTATION

Not applicable: The guideline was not adapted from another source.

### DATE RELEASED

2000 Aug

### GUIDELINE DEVELOPER(S)

Chapter of Obstetricians and Gynaecologists, Academy of Medicine (Singapore) - Medical Specialty Society
National Medical Research Council (Singapore Ministry of Health) - National Government Agency [Non-U.S.]
Singapore Ministry of Health - National Government Agency [Non-U.S.]

### GUIDELINE DEVELOPER COMMENT

These guidelines on induction of labour were developed by a workgroup consisting of specialists in the field of obstetrics and gynaecology appointed by the Chapter of Obstetricians and Gynaecologists, Academy of Medicine, Singapore.

### SOURCE(S) OF FUNDING

Singapore Ministry of Health

### GUIDELINE COMMITTEE

Workgroup on Induction of Labour

## COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Workgroup members: Dr. Selina Chua Poh Kim (Chairperson); Dr. Yu Su Ling; Dr. Abdul Aziz; Dr. Chan Weng Buen; Dr. Ho Hon Kwok; Dr. Ann Tan; Dr. Wong Yee Chee; Dr. Yeo Seow Heong

## FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

## GUIDELINE STATUS

This is the current release of the guideline.

An update is not in progress at this time.

## GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Singapore Ministry of Health Web site.

Print copies: Available from the Singapore Ministry of Health, College of Medicine Building, Mezzanine Floor 16 College Rd, Singapore 169854.

## AVAILABILITY OF COMPANION DOCUMENTS

None available

## PATIENT RESOURCES

None available

## NGC STATUS

This summary was completed by ECRI on October 25, 2001. The information was verified by the guideline developer on November 16, 2001.

## COPYRIGHT STATEMENT



Date Modified: 11/8/2004


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